

REMARKS

Claims 1-19 are pending in the application. Claims 1-19 are rejected. The Examiner's rejections are addressed below in substantially the same order as in the office action.

Comments Regarding the Amendments

Claim 1 has been amended to include a limitation, "wherein the equivalent ratio between the polyisocyanate and the non-ionic alkyloxyated diol is such that the percentage of free isocyanate groups in the non-ionic $-N=C=O$ blocked polyisocyanates is from 3 to 10 percent." A basis for this amendment may be found in Claim 6 and elsewhere in the application.

REJECTIONS UNDER 35 U.S.C. §102

Claims 1-3, 6-7, 11, and 13 stand as rejected under 35 U.S.C. 102(b) as being anticipated by Yao, et al., (YOA). It is the Examiner's position that YAO teaches reversibly blocked non-ionic water dispersible polyisocyanates and a method for their production comprising the reaction of (i) polyisocyanate and (ii) dihydroxy polyether, thereby forming an intermediate having free isocyanate groups which are then masked with (iii) isocyanate blocking agent. The Examiner notes that in particular, (ii) has a structure that corresponds to applicants' non-ionic alkoxyated diol having the (iii) R_1 structure, and based on the stoichiometry of example 1, the isocyanate blocking agent is present relative to the free isocyanate groups in an equivalent ratio of 1.14:1.

The Applicants respectfully traverse the Examiner rejections under §102. Claim 1 has been amended to include a limitation also found in claim 6, namely that the equivalent ratio between the polyisocyanate and the non-ionic alkyloxyated diol is such that the percentage of free isocyanate groups in the non-ionic $-N=C=O$ blocked polyisocyanates is from 3 to 10 percent. The specification of YAO is silent in regard to the free isocyanate groups. However, by calculating the ratio of the isocyanate and D1, it is clear that the percentage of free isocyanate groups in the oligomer is 15.6%. This is substantially higher than that of Claim 6 and the newly amended Claim 1. It follows then that

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Claims 1 and 6 and all of their dependent claims are outside of the scope of the YOA reference and are not anticipated.

REJECTIONS UNDER 35 U.S.C. §103

Claims 1-3, 5-7, and 11-14 stand as rejected under 35 U.S.C. 103(a) as being unpatentable over Baumbach et al ('536) in view of Buter et al (WO 97119120) or in the alternative Ishiyama et al. ('867). It is the Examiner's position that BAUMBACH teaches blocked non-ionic water dispersible polyisocyanates and a method of making them comprising the reaction of (i) polyisocyanate and (ii) ethylene oxide based dihydroxy polyether, thereby forming an intermediate having free isocyanate groups which are then masked with (iii) isocyanate blocking agent. The Examiner emphasizes that (iii) consist of butanone oxime and 3,5-dimethylpyrazole, and are present relative to free isocyanate in an equivalent ratio ranging from 1.09: 1 to 1 : 1.1 and that the resulting blocked polyisocyanate is then dispersed in water resulting in a solid's content as low as 20 wt%. The Examiner acknowledges that the Patentees fail to teach compounds corresponding to the claimed non-ionic alkoxylated diol.

The Examiner cites BUTER as teaching water dispersible compounds that comprise the reaction
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